IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF NORTH CAROLINA
SOUTHERN DIVISION
No. 7:23-cv-00897

IN RE:
CAMP LEJEUNE WATER LITIGATION

This Document Relates To:
***Tukes v. United States*, No. 7:23-cv-01553**

RESPONSE IN OPPOSITION TO PLAINTIFF'S MOTION TO EXCLUDE DEFENSE EXPERT DR. GAIL H. VANCE, M.D.

TABLE OF JOINT APPENDIX EXHIBITS

J.A. Exhibit No.	Docket Entry No.	Title
380	491-4	Allen MCL (Tukes)
381	491-5	Allen Suppl. MCL
444	495-13	Vance Rep. (Tukes)
587	507-8	Allen Dep. Tr.
601	508-10	Vance Dep. Tr.

INTRODUCTION

In her clinical practice, Dr. Gail Vance routinely determines whether a patient's clinical presentation is consistent with a hereditary cancer syndrome. As a board-certified clinical geneticist with more than thirty years of experience diagnosing hereditary cancers, counseling patients, and teaching medical genetics, Dr. Vance applied the same evidence-based standards that she uses in her clinical practice to make the same determination for Ms. Tukes.

Plaintiff misunderstands Dr. Vance's opinions. She does not opine on the most likely cause of Ms. Tukes' kidney cancer. That task fell to Dr. Walter Stadler, the United States' kidney cancer expert. Dr. Vance's opinions informed one narrow component of Dr. Stadler's differential diagnosis: Whether Ms. Tukes' case was consistent with a hereditary cancer syndrome. This allowed Dr. Stadler to determine how to consider that possibility within his broader etiologic assessment. Plaintiff now distorts Dr. Vance's opinions to argue against a version of her testimony that does not exist.

In reaching her opinion, Dr. Vance applied the same methodology that she has relied on for decades in her clinical practice. In the hereditary-cancer context, clinical geneticists use the National Comprehensive Cancer Network (NCCN) Guidelines to integrate genetic testing with clinical presentation because negative genetic testing results, standing alone, cannot rule out a hereditary cause. Applying the NCCN Guidelines and her decades of experience, Dr. Vance found that Ms. Tukes met multiple hereditary kidney cancer factors. Because Dr. Vance's methodology is reliable, Plaintiff's remaining criticisms go to weight, not admissibility. The materials they claim Dr. Vance failed to review are irrelevant to her role. Indeed, Plaintiff's own expert geneticist, Dr. Allen, did not review the same material Plaintiff now claims were indispensable.

Dr. Vance's opinions rest on her qualifications, experience, and reliable application of accepted genetic assessment methodology. Plaintiff's motion should be denied.

BACKGROUND

I. The Framework of Medical Genetics and Hereditary Cancer Evaluation.

In reaching her opinions, Dr. Vance applied the same methodology she uses in her clinical practice to determine whether a patient's cancer is consistent with a hereditary cancer syndrome. *See* Vance Rep. (Tukes) at 17 (J.A. Ex. 444, D.E. 495-13). Like other medical diagnoses, determining whether a patient's cancer is hereditary involves clinical judgment, including weighing competing factors. Two groups of factors are relevant here. The first group of factors is a patient's genotype, meaning the genetic constitution of a patient's DNA, as distinguished from the patient's phenotype, which consists of the observable physical or clinical characteristics of the patient. *Id*. at 4 (defining genotype and phenotype).

Genotype is determined through genetic testing that analyzes DNA for pathogenic variants, which are genetic changes known to increase disease risk, including cancer risk. Laboratories typically test a defined panel of genes linked to a particular cancer syndrome and classify any variants into one of the following categories: pathogenic, likely pathogenic, variant of uncertain significance, likely benign, or benign. *Id*. at 13. The variants classified as pathogenic or likely pathogenic are considered positive and associated with disease. *Id*. Variants of uncertain significance reflect genetic changes whose role is not yet understood. *Id*. Variants classified as likely benign or benign are regarded as negative, which as Plaintiff's own expert admits, "is different than concluding there is no genetic disorder[.]" *See* Allen Dep. Tr. at 40:9–15 (J.A. Ex. 587, D.E. 507-8). Rather, "[a] negative result is an indeterminate result meaning no additional information was gained." *See* Vance Rep. (Tukes) at 13 (J.A. Ex. 444, D.E. 495-13). "It is not known if the person was truly negative for a gene mutation; or the current technology couldn't find the mutation; or another gene is involved but medical science has not yet identified the association of the gene with disease." *Id*. The absence of an identified pathogenic variant does not

rule out a hereditary cancer syndrome, because genetic testing cannot detect all possible mutations and some hereditary cancers are diagnosed based on clinical features (phenotype) alone. *See id.* at 20.

The second group of factors in assessing hereditability is a patient's clinical phenotype, meaning the observable characteristics such as physical findings, family history, and other medical information that inform a diagnosis. *Id.* at 13 ("The interpretation of genetic test results is delivered in the context of the laboratory report and the medical and family history of the patient."). Phenotype is determined through clinical evaluation. The patient's clinical phenotype can provide the required clinical context for interpreting genetic test results and for capturing features that genetic testing alone cannot. Certain clinical features are understood to be associated with hereditary kidney cancer: (1) diagnosis at a young age (46 years or younger); (2) multiple tumors within the same organ (multifocal); (3) tumors in both paired organs (bilateral); and (4) a relevant family history of cancer, particularly involving the same organ system. *See* Ex. 1, NCCN Guidelines at 27 (Criterion 2). All of these clinical features are considered indicators of hereditability.[1] *See* Vance Rep. (Tukes) at 17–18 (J.A. Ex. 444, D.E. 495-13).

Clinicians nationwide regularly rely on the NCCN Guidelines, developed by an alliance of leading cancer centers, to provide evidence-based clinical practice standards for cancer care. The NCCN Guidelines are used by trained clinicians to integrate genetic test results within the context of a full evaluation of a patient's clinical phenotype. The NCCN Guidelines state, "[a]ny clinician seeking to apply or consult the NCCN Guidelines is expected to use independent medical judgment

[1] Plaintiff argues that "hereditary cancers do not present with a unique clinical presentation." D.E. 620 at 5. But that is wrong. Both the NCCN Guidelines and Dr. Vance's decades of clinical genetics experience recognize that specific phenotypic patterns—such as early age of diagnosis, multifocal tumors, bilateral tumors, and family history—are well established indicators of hereditary kidney cancer and routinely guide clinical decision-making in genetics practice.

in the context of individual clinical circumstances to determine any patient's care or treatment." Ex. 1 at 4. Plaintiff's own expert, Dr. Allen, agrees that "diagnostic testing results should be interpreted within the context of additional laboratory results, family history, and clinical findings[.]" Allen Dep. Tr. at 40:25–41:4 (J.A. Ex. 587, D.E. 507-8).[2]

II. Dr. Gail Vance's Expertise and Application of the NCCN Methodology.

Dr. Vance has more than thirty years of experience in clinical genetics and cancer genetics. *See generally* Ex. 2, Vance Curriculum Vitae, at 1–5. She is board certified in clinical genetics, clinical cytogenetics, and clinical pathology. *Id*. at 1. She has served on the faculty of Indiana University (IU) School of Medicine for over thirty years, directing the Familial Cancer Program for Medical and Molecular Genetics, leading the Cytogenetics Laboratory for more than twenty years, and directing the Medical Genetics Residency Program for two decades. *Id*. at 2. She was also the Sutphin Professor of Cancer Genetics, Emeritus. *Id*. at 3. Currently, she serves as attending staff at the IU Health Hereditary Renal and Prostate Clinic. *Id*. at 4.[3]

In her practice, Dr. Vance applies the NCCN Guidelines to evaluate patients for hereditary cancer by analyzing each patient's genotype and phenotype. Her methodology follows the standard practice in medical genetics which involves reviewing the genetic testing performed, including the genes tested and variant classifications, and assessing the patient's clinical phenotype. As Dr. Vance explained, "[a] negative gene test result in an individual with a suspected hereditary cancer syndrome does not exclude a heritable cause for the cancer." *See* Vance Rep. (Tukes) at 20 (J.A. Ex. 444, D.E. 495-13).

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[2] Dr. Allen, however, is not a clinician himself and is not qualified to make any such clinical findings. *See generally* D.E. 528, Def.'s Mem. in Supp. of Mot. to Exclude Dr. Allen's Opinions Regarding Hereditability and Causation (filed Sept. 9, 2025).

[3] Plaintiff does not dispute that Dr. Vance possesses the qualifications required under Rule 702 to render her opinions.

In this case, Dr. Vance was asked to evaluate Ms. Tukes' kidney cancer for hereditability. Applying the accepted NCCN methodology and drawing on her decades of experience treating patients with hereditary cancers, Dr. Vance reviewed Ms. Tukes' genetic testing, medical records, and family history and concluded "that there is a very high likelihood that she has an underlying genetic predisposition…." *See* Vance Dep. Tr. at 132:25–133:2 (J.A. Ex. 601, D.E. 508-10).

III. Application of the NCCN Methodology to Ms. Tukes' Case.

Dr. Vance's opinions are helpful to addressing causation in Ms. Tukes' case because a clinician must consider genotype and phenotype together when evaluating a cancer for hereditability. Although the human body contains more than 20,000 genes, Ms. Tukes' genetic testing, performed by Invitae, examined only 30 genes—those currently known to be associated with hereditary kidney cancer. By testing less than two-tenths of one percent of the human genome, Ms. Tukes' negative result is not dispositive of hereditability in a clinical setting. *See* Vance Rep. (Tukes) at 20 (J.A. Ex. 444, D.E. 495-13). In fact, Plaintiff's own genetics expert, Dr. Allen, agreed that Ms. Tukes' negative result "is different than concluding there is no genetic disorder[.]" Allen Dep. Tr. at 40:9–15 (J.A. Ex. 587, D.E. 507-8). As Dr. Allen further acknowledged, "the results of a genetic diagnostic test is not a diagnosis itself[.]" *Id*. at 40:16–19.

As Dr. Vance noted, Ms. Tukes met multiple NCCN clinical features of hereditary kidney cancer: early age of diagnosis, bilateral tumors, multifocal tumors, and a potential family history of cancer. *See* Vance Rep. (Tukes) at 18–20 (J.A. Ex. 444, D.E. 495-13). The NCCN Guidelines identify each of these features as an indicator of hereditary kidney cancer and permit clinical judgment based on their presence. *See* Ex. 1 at 27. And Dr. Allen agreed that Ms. Tukes displayed several of these features. *See* Allen Dep. Tr. at 52:15–53:2 (J.A. Ex. 587, D.E. 507-8). Considering those clinical features within the accepted NCCN methodology she has applied for decades, Dr. Vance concluded that Ms. Tukes' case was consistent with hereditary kidney cancer.

LEGAL STANDARD

"Rule 702 of the Federal Rules of Evidence governs the admissibility of expert testimony." *Nix v. Chemours Co. FC, LLC*, No. 7:17-cv-189-D, __ F. Supp. 3d __, 2025 WL 2924613, at *5 (E.D.N.C. Sept. 30, 2025) (citations omitted). Under Rule 702, the Court "must ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable." *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 589 (1993). "'[T]he test of reliability is flexible and the law grants a district court' discretion when it decides reliability." *Nix*, 2025 WL 2924613, at *7 (citing *United States v. Wilson*, 484 F.3d 267, 274 (4th Cir. 2007)). "Reliability focuses on the fit between the expert opinion and the facts of the case." *Id*. "There is not a fit when a large analytical gap exists between the facts of the case and the opinion." *Id*. (citations omitted).

In assessing reliability, courts consider several non-exhaustive factors, such as whether the expert's theory or technique can be tested, has been subjected to peer review or publication, has a high known or potential error rate, has standards controlling its application, and has been generally accepted within the relevant scientific community. *Id*. at *8.

"In determining 'whether proffered testimony is sufficiently reliable, the [C]ourt has broad latitude to consider whatever factors bearing on validity that the [C]ourt finds to be useful; the particular factors will depend upon the unique circumstances of the expert testimony involved.'" *Id*. (quoting *Westberry v. Gislaved Gummi AB*, 178 F.3d 257, 261 (4th Cir. 1999)). "The proponent of the expert testimony must establish its admissibility by a preponderance of the evidence." *Id.* at *6; *see also* Fed. R. Evid. 702 advisory committee's note to 2023 amendment (noting that "the preponderance of the evidence standard" governs the admissibility of expert testimony). "[O]nce the [C]ourt has found it more likely than not that the admissibility requirement has been met, any attack by the opponent will go only to weight of the evidence." Fed. R. Evid. 702 advisory committee's note to 2023 amendment.

ARGUMENT

Plaintiff's motion fails for two reasons. ***First,*** Plaintiff misunderstands Dr. Vance's opinions. She was not retained to conduct a differential diagnosis. Rather, she was asked to apply her clinical genetics expertise to evaluate whether Ms. Tukes' genetic testing (genotype) and clinical presentation (phenotype) were consistent with a hereditary cancer syndrome, and to provide that context to Dr. Stadler for his differential diagnosis to account for the hereditary component. Rule 702 requires foundational reliability and Dr. Vance satisfies that standard by applying the accepted NCCN-based methodology and drawing on her decades of experience. ***Second***, because Dr. Vance's opinions satisfy Rule 702's reliability requirement, Plaintiff's remaining criticisms regarding the information Dr. Vance did not review go to weight, not admissibility. The materials at issue are not relevant to the opinions Dr. Vance offered, and Plaintiff's own genetics expert, Dr. Allen, ignored the very same information they now claim Dr. Vance should have considered.

I. Plaintiff Misunderstands the Scope of Dr. Vance's Testimony, Which Reflects a Reliable Application of the NCCN Guidelines.

Dr. Vance did not opine as to what caused Ms. Tukes' kidney cancer. Her role, defined by her expertise in clinical genetics, was to assess whether Ms. Tukes' genetic testing (genotype) and clinical presentation (phenotype) were consistent with hereditary kidney cancer syndrome. That focused inquiry formed the genetic foundation for Dr. Stadler's differential diagnosis. Because Dr. Vance's opinion does not determine causation, consideration of alternative causes or performance of a differential diagnosis is irrelevant to the reliability of her methodology.

Rule 702 requires that expert testimony be "the product of reliable principles and methods[.]" Fed. R. Evid. 702(c). "The rationale behind Rule 702 and *Daubert* is to 'make certain that an expert . . . employs in the courtroom the same level of intellectual rigor that characterizes

the practice of an expert in the relevant field.'" *Smith v. Wyeth-Ayerst Lab'ys Co.*, 278 F. Supp. 2d 684, 698 (W.D.N.C. 2003) (citing *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 152 (1999)). "[T]he text of Rule 702 expressly contemplates that an expert may be qualified on the basis of experience." Fed. R. Evid. 702 advisory committee's note to 2000 amendment. And "no one denies that an expert might draw a conclusion from a set of observations based on extensive and specialized experience." *Kumho Tire*, 526 U.S. 137, 156 (1999).

Here, Dr. Vance's methodology reflects this combination of evidence-based principle and professional experience. She applied the same evidence-based framework she uses in her clinical practice—one grounded in the NCCN Guidelines, which clinicians rely on to integrate genotype with a patient's phenotype and family history when evaluating whether a kidney cancer is hereditary. Dr. Vance's decades of clinical experience recognize that genetic testing has interpretive limits and that a negative genetic test result does not exclude a hereditary cause. *See* Vance Rep. (Tukes) at 20–21 (J.A. Ex. 444, D.E. 495-13).

Expert methodologies are reliable where the expert combines clinical guidelines—including the NCCN Guidelines—and other medical literature together with professional experience. *See McKinley v. United States*, No. 5:15-cv-101, 2017 WL 3445651, at *10 (M.D. Ga. Aug. 10, 2017) (holding experts' opinions reliable where they relied on "a variety of peer-reviewed literature and data, . . . including . . . the NCCN Guidelines . . . . These sources, combined with the experts' experience, provide[d] a sufficient basis for their opinions.").

And specifically as related to genetics, experts explain that limited genetic testing may not reveal the precise genetic defect responsible for a hereditary condition. *See Ortega v. United States*, No. 16-cv-8402, 2021 WL 4477896, at *12 (N.D. Ill. Sept. 30, 2021). In *Ortega*, the court granted summary judgment for the United States after crediting unrebutted testimony from a genetics

expert who concluded that an infant's neurologic condition was caused by a congenital myopathy, even though genetic testing did not identify a specific mutation. *Id*. The expert explained that limited forms of testing often fail to identify "the exact etiology" of a congenital disorder, yet both the genetics expert and the treating care teams agreed that the condition was congenital. *Id*. Dr. Vance reached a parallel conclusion here: consistent with accepted NCCN methodology and her experience treating hereditary cancer patients, she explained that Ms. Tukes' negative 30-gene panel does not rule out a hereditary cancer syndrome. This is because current genetic testing cannot capture all possible mutations, and clinical features may still indicate a hereditary syndrome.

To conduct a reliable and clinically sound assessment, Dr. Vance applied the NCCN Guidelines while drawing on her extensive experience treating hereditary-cancer patients. As she explained in her report, the NCCN expert panels review current medical literature and issue recommendations for diagnosing and managing hereditary cancers. She stated:

> The [NCCN] expert panels review current literature and provide clinical practice guidelines as evidence-based recommendations for the diagnosis, treatment, screening and management of various types of cancer including hereditary cancers. Among these, NCCN has established criteria for evaluating whether a kidney cancer is a "hereditary renal cell carcinoma," which I apply here. These are the same criteria I would apply in my clinical practice.

See Vance Rep. (Tukes) at 17 (J.A. Ex. 444, D.E. 495-13).

The NCCN Guidelines identify several clinical features that indicate a hereditary kidney cancer, including early age at diagnosis, existence of bilateral tumors, existence of multifocal tumors, and family history of kidney cancer. *See* Ex. 1 at 27. Dr. Vance explained that no one factor outweighs the other, and that the presence of multiple NCCN factors provides stronger evidence of hereditary cancer. *See* Vance Rep. (Tukes) at 17–18 (J.A. Ex. 444, D.E. 495-13). Dr. Vance further observed that even when genetic testing does not reveal a known pathogenic variant,

a patient's clinical presentation (phenotype) and family history may still indicate an underlying genetic predisposition and warrant management of the disease as a hereditary case. *Id*.

Applying the NCCN Guidelines, Dr. Vance concluded that Ms. Tukes met the criteria for hereditary kidney cancer. *Id*. Ms. Tukes was diagnosed at an early age (45 years), presented with bilateral tumors, and presented with multifocal tumors; each of these is an indicator of hereditary kidney cancer under the NCCN Guidelines. *Id*. In fact, Plaintiff does not dispute that Ms. Tukes met these NCCN factors for hereditary kidney cancer. *See* D.E. 620 at 5 ("Specifically, Dr. Vance relies on the fact that Ms. Tukes' [kidney cancer] developed while she was in her 40s, and presented bilaterally . . . and multifocally[.]"). And Plaintiff's own genetics expert likewise acknowledged that Ms. Tukes displayed these indicators of a hereditary kidney cancer syndrome. *See* Allen Dep. Tr. at 52:15–53:2 (J.A. Ex. 587, D.E. 507-8).

Dr. Vance also considered Ms. Tukes' family history. Although the record leaves some uncertainty as to whether the cancer that Ms. Tukes' mother experienced was a primary kidney cancer or a metastasis from another site,[4] Ms. Tukes herself admitted that her mother had kidney cancer and that her "mother pass[ed] away as a result of kidney cancer[.]" *See* Ex. 4, Tukes Dep. Tr. at 156:18–157:1 (Apr. 11, 2024). Nevertheless—and to the extent that Ms. Tukes is permitted to contest her own testimony—Dr. Vance explained that "even if Ms. Tukes' mother did not have [kidney cancer] as initially indicated, her phenotype is still consistent with a hereditary [kidney cancer]." *See* Vance Rep. (Tukes) at 20 (J.A. Ex. 444, D.E. 495-13). In contrast, Plaintiff's genetics expert, Dr. Allen, admitted that he had no clinical or guideline-based support for disregarding the

[4] The University of North Carolina at Chapel Hill (UNC) medical records indicate that Ms. Tukes' mother passed away from renal cancer, though it is undetermined whether this represented a primary renal carcinoma or metastasis from another cancer. (*See* Exhibit 3, UNC Med. Rec., at 13, 46, 65, 66, 80, 81, 109, 134, 176, 250, 266).

NCCN Guidelines. Instead, he unilaterally decided to give greater weight to Ms. Tukes' limited genetic test results on the theory that the NCCN Guidelines do not reference "carcinogen exposure." Allen Dep. Tr. at 56:24–58:11 (J.A. Ex. 587, D.E. 507-8). Yet, when asked about those carcinogens, Dr. Allen admitted that "[he didn't] know what contaminants are being – are in the Camp Lejeune case." *Id*. at 82:23–83:5.

Dr. Vance's opinions are based on reliable principles and methods as Rule 702 requires. She applied the established NCCN methodology and her decades of clinical experience to assess whether Ms. Tukes' case was consistent with hereditary kidney cancer. Plaintiff's criticisms rest on a misunderstanding of Dr. Vance's role, and Plaintiff cannot transform a clinically sound genetics evaluation into an unreliable causation opinion. Because Dr. Vance employed the same rigor and methodology that she uses in her clinical practice, her opinions are reliable and should be admitted.

II. Because Dr. Vance's Opinions Are Reliable and Her Review Properly Reflected the Scope of Her Assignment, Plaintiff's Other Minor Criticisms Go Only to Weight.

Dr. Vance's opinions rest on the full range of information necessary for her opinions. Her analysis reflects a reliable clinical assessment grounded in the same medical data that clinical geneticists use to evaluate suspected hereditary cancers. She reviewed the information necessary to render a sound clinical determination under the NCCN framework. These medical records and genetic testing results are the same materials that Dr. Vance would consider if Ms. Tukes were her own patient. In fact, Dr. Vance reviewed additional materials given that her review included deposition transcripts.

Rule 702 requires that expert testimony be "based on sufficient facts or data[.]" Fed. R. Evid. 702(b). "Thus, 'trial judges may evaluate the data offered to support an expert's bottom-line opinions to determine if that data provides adequate support to mark the expert's testimony as

reliable.'" *United States v. Berkeley Heartlab, Inc.*, No. 9:11-cv-1593-RMG, 2017 WL 2831254, at *2 (D.S.C. June 29, 2017) (citing *EEOC v. Freeman*, 778 F.3d 463, 472 (4th Cir. 2015)).

Here, the facts and data that Dr. Vance reviewed provided more than adequate support for her opinions to be based on sufficient facts and data because she employed the same approach that she uses in her clinical practice. Dr. Vance reviewed medical records relevant to Ms. Tukes' kidney cancer and genetic testing. *See* Vance Rep. (Tukes) at 15–16 (J.A. Ex. 444, D.E. 495-13). She also reviewed the deposition of Ms. Tukes herself; the deposition of Mary Garbarini, the genetic counselor involved in Ms. Tukes' genetic care at UNC-Chapel Hill; and the deposition of Ms. Tukes' treating urologist, Dr. Roc McCarthy. *See* Vance Dep. Tr. at 99:10–12, 99:16–17, 100:2–4 (J.A. Ex. 601, D.E. 508-10). In addition, she reviewed Dr. Allen's report and portions of Dr. Allen's rough deposition transcript.[5] *See* Vance Dep. Tr. at 100:22–101:9, 90:14–19 (J.A. Ex. 601, D.E. 508-10). Based on this information, Dr. Vance provided a detailed description of Ms. Tukes' medical and genetic history spanning more than fourteen years and integrated that data into her analysis. *See* Vance Rep. (Tukes) at 15–16 (J.A. Ex. 444, D.E. 495-13). That review was fully consistent with the scope of her assignment and the methodology recognized by the NCCN Guidelines for evaluating hereditary kidney cancer.

Plaintiff's suggestion that Dr. Vance should have reviewed exposure histories, housing records, or deposition transcripts of other witnesses misapprehends both Dr. Vance's role in this

[5] Plaintiff asserts that Dr. Vance "did not even read all of [Dr. Allen's] report because 'it was difficult to read.'" D.E. 620 at 9. That is simply false. A closer and accurate read of Dr. Vance's testimony makes clear that Dr. Vance was referring to the *rough deposition transcript* of Dr. Allen—not his expert report—when she testified she "probably [did] not [read it] to completion." *See* Vance Dep. Tr. at 90:14–19 (J.A. Ex. 601, D.E. 508-10). In fact, Plaintiff's counsel acknowledged that Dr. Vance had reviewed Dr. Allen's reports. *Id.* at 100:22–101:9. And Dr. Vance confirmed that she reviewed Dr. Allen's report in full, as reflected in her own detailed discussion of Dr. Allen's opinions. *See* Vance Rep. (Tukes) at 21–23 (J.A. Ex. 444, D.E. 495-13).

case and how Rule 702's requirements apply to an expert like Dr. Vance. Dr. Vance did not evaluate toxic exposures, nor does she opine on toxic exposures. Environmental exposures fall outside her expertise in clinical genetics and beyond the scope of her opinions.[6]

Plaintiff also faults Dr. Vance for not reviewing the deposition of Ms. Tukes' treating oncologist, the depositions of Ms. Tukes' two nephrologists, or the Phase II expert reports relevant to Ms. Tukes. But none of those materials are relevant to Dr. Vance's opinions. Dr. Jayaram, who served as Ms. Tukes' treating oncologist, testified that his role was to "kind of help coordinate different treatment options for [Ms. Tukes] and help her understand . . . the risks and benefits of those treatment options."[7] Ex. 6, Jayaram Dep. Tr. at 84:19–85:4. Dr. Thomas served as Ms. Tukes' nephrologist while she was on dialysis (*See* Ex. 7, Thomas Dep. Tr. at 17:9–13), and Dr. Jones, the other nephrologist Plaintiff references, treated Ms. Tukes as her post-transplant nephrologist. *See* Ex. 8, Jones Dep. Tr. at 19:8–14. Nor did the Phase II expert reports, which concern whether specific chemicals can cause kidney cancer generally, address whether Ms. Tukes' genotype and phenotype were consistent with a hereditary cancer syndrome. Each of these categories of information is irrelevant to Dr. Vance's narrowly defined genetic assessment.

The record further confirms the reliability of Dr. Vance's focused review. Plaintiff's own genetics expert, Dr. Allen, did not review Ms. Tukes' exposure history, housing records, or treating-physician depositions. *See* Allen Dep. Tr. at 17:25–19:16 (J.A. Ex. 587, D.E. 507-8). Dr. Allen testified that, aside from Dr. Vance's report, he failed to review any materials beyond those

[6] Ms. Tukes, however, resided at Camp Lejeune after the contaminated wells had been shut down, rendering any alleged exposure speculative at best. (*See* Ex. 5, Tukes Dep. Tr. at 57:19–21 (Jan. 15, 2025) (Ms. Tukes testifying that she did not reside at Camp Lejeune prior to June 1985)).

[7] In fact, Dr. Jayaram's own testimony supports why Dr. Vance's opinions are helpful to the trier of fact. Dr. Jayaram agreed that one "can't definitely rule out a [genetic] predisposition by way of a genetic test[.]" *See* Ex. 6 Jayaram Dep. Tr. at 21:10–18 (plaintiff's counsel's objection omitted).

listed in his materials considered list. *Id*. at 19:12–16. Those lists show that he relied almost exclusively on Ms. Tukes' UNC medical records, later adding only the Camp Lejeune Justice Act itself. *See* Allen MCL (Tukes) at 2–3 (J.A. Ex. 380, D.E. 491-4); Allen Suppl. MCL at 2 (J.A. Ex. 381, D.E. 491-5). Finally, despite claiming that Ms. Tukes' cancer was the result of environmental exposures rather than hereditability, Dr. Allen admitted that he did not even know which chemicals were at issue in this litigation when he testified: "[a]gain, I'm not – I don't know what contaminants are being – are in the Camp Lejeune case. But, yeah, I don't know." *See* Allen Dep. Tr. at 82:23–83:5 (J.A. Ex. 587, D.E. 507-8).

CONCLUSION

Because Dr. Vance applied the NCCN methodology and her decades of clinical experience, her opinions are reliable and should be admitted. Because Dr. Vance's methodology is reliable and grounded in sufficient facts and data to reach her opinions, Plaintiff's complaints about the scope of her review go to weight, not admissibility. Therefore, Plaintiff's motion should be denied.

Dated: November 10, 2025

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on November 10, 2025, I electronically filed the foregoing using the Court's Electronic Case Filing system, which will send notice to all counsel of record.

/s/ Joshua G. Carpenito
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